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GARLICK HARRISON & MARKISON
P.O. BOX 160727
AUSTIN, TX 78716-0727

EXAMINER	
RYMAN, DANIEL J	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 08/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/748,069	O'SULLIVAN ET AL.	
	Examiner	Art Unit	
	Daniel J. Ryman	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *29,30 and 49-58* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *29,30 and 49-58* is/are rejected.

7)☒ Claim(s) *49,50,52,54,55 and 57* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Examiner acknowledges Applicant's filing of an RCE on 24 July 2006.

2. Applicant's arguments with respect to claims 29 and 30 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claim 49 is objected to because of the following informalities: in line 1 "comprises" should be "comprising". Appropriate correction is required.

4. Claim 50 is objected to because of the following informalities: in line 2 "comprises" should be "comprising". Appropriate correction is required.

5. Claim 52 is objected to because of the following informalities: in line 2 "comprises" should be "comprising". Appropriate correction is required.

6. Claim 54 is objected to because of the following informalities: in line 1 "comprises" should be "comprising". Appropriate correction is required.

7. Claim 55 is objected to because of the following informalities: in line 2 "comprises" should be "comprising". Appropriate correction is required.

8. Claim 57 is objected to because of the following informalities: in line 2 "comprises" should be "comprising". Appropriate correction is required.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 29, 30, and 49-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Neyman (USPN 6,549,539) in view of Gisby et al. (USPN 6,064,667).

11. Regarding claim 29, Neyman discloses a network spanning heterogeneous call center controller (Fig. 1 and col. 6, lines 16-19, where the "communications center" is controlled by various components, which, in combination, comprise a "call center controller") comprising: a public switched telephone network input (see ref. 43 and col. 6, lines 8-13, where the COST, i.e. PSTN, link to the communications center is a PSTN input, see also col. 9, lines 30-33); an internet connection input (see ref. 45 and col. 6, lines 8-16, where the DNT, i.e. Internet, link to the communications center is an Internet input, see also col. 9, lines 42-43); a switching element responsive to the public switched telephone network input (ref. 39: telephony switch and col. 9, lines 30-33, where the telephony switch is "adapted to receive COST calls from COST network 13 via a trunk connection 43"); an internet protocol interface responsive to the internet connection input (see ref. 45 and col. 6, lines 8-16, where it is implicit that the internet connection connects through an interface, see also col. 9, lines 42-43); a telephony resource module connectable to the switching element (Fig. 1 and col. 9, lines 4-20, where the IVR, ref. 47, is a "telephony resource module" that is indirectly connectable to the switching element); a processor coupled to the internet protocol interface and the switching element (Fig. 1 and col. 9, lines 52-54, where the IDRP, ref. 37, is indirectly coupled to the switching element, ref. 39, and the IP interface, see ref. 45); a first set of agent output channels responsive to the switching element, the first set of agent output channels directed to communicate with circuit switched agent terminals (Fig. 1 and col. 9, lines 33-38, where COST telephones, ref. 81 and 83, are

connected to switch 39, such that there is an agent output channel directed to communicate between the switching element and the COST terminals, i.e. circuit-switched agent terminals); a second set of agent output channels responsive to the internet protocol interface, the second set of agent output channels directed to communicate with internet enabled agent terminals (Fig. 1 and col. 9, lines 39-46, where PC/VDUs, ref. 77 and 79, are connected to switch 41, and therefore indirectly responsive to the IP interface, such that there is an agent output channel directed to communicate between the IP interface and the PC/VDUs, i.e. internet enabled agent terminals); and a domain conversion module coupled to the switching element and the internet protocol interface, the domain conversion module to convert between the internet protocol traffic and the circuit switched voice traffic (Fig. 1; col. 10, lines 40-55 and col. 11, lines 3-18, where the gateway, ref. 57, converts between the DNT and the COST traffic and where the gateway is indirectly coupled with the switching element, ref. 39, and the IP interface).

Neyman does not expressly disclose coupling the processor to a data bus, where the data bus is coupled to the IP interface and the switching element. However, Neyman does disclose coupling the data processor to the IP interface and the switching element (Fig. 1 and col. 9, lines 52-54, where the IDRP, ref. 37, is indirectly coupled to the switching element, ref. 39, and the IP interface, see ref. 45). Examiner takes official notice that busses are a connection that is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to couple the processor to a data bus, where the data bus is coupled to the IP interface and the switching element, since busses are a well-known type of connection.

Neyman does not expressly disclose having a domain conversion module that is responsive to the internet protocol interface. Gisby teaches, in a system for routing calls to a call

center, routing a call to a particular agent (col. 13, lines 42-46, where routing is done on the agent level) based on agent skill (col. 10, lines 29-41, where a skill profile indicates routing based on skill), degradation of system performance (col. 11, lines 9-14), or agent availability (col. 11, lines 32-50). Gisby does this in order to permit a call center to operate "at best efficiency even as circumstances alter rapidly" (col. 11, lines 39-50). Neyman discloses using domain conversion to convert between circuit-switched and IP traffic based on enterprise rules (col. 10, lines 40-55 and col. 11, lines 3-18, where the gateway, ref. 57, converts between the DNT and the COST traffic). Examiner notes that the routing of Gisby is performed by an SCP or by the "call center" (col. 7, lines 39-44), where Neyman contemplates having the IDRP perform such routing, with the IDRP being within the call center (Fig. 1 and col. 8, lines 45-51). Thus, Neyman and Gisby disclose performing routing to particular call agents within the call center. As such, it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the routing of Gisby, which is based on agent skill, system performance, or agent availability, within the call center of Neyman, by having a domain conversion module that is responsive to the IP interface. One of ordinary skill in the art at the time of the invention would have been motivated to do this in order to enable the call center controller to route calls between IP phones and COST phones depending on agent skill, network problems, and agent availability, such that the call center operates at best efficiency even as circumstances alter rapidly. In addition, providing the domain conversion module within the call center obviates the need for the call center controller to route a call that is to be converted into the other domain back into the network to an external gateway in order to perform the conversion, thus reducing call delay and traffic on the networks.

12. Regarding claim 30, Neyman in view of Gisby discloses a data resources module to provide selected data resources via the internnet protocol interface (Neyman: Fig. 1 and col. 9, lines 4-20, where the IVR, ref. 47, provides data resources via the IP interface by, for example, providing access to call center resources faster for priority calls).

13. Regarding claim 49, Neyman discloses a network spanning heterogeneous call center controller (Fig. 1 and col. 6, lines 16-19, where the "communications center" is controlled by various components, which, in combination, comprise a "call center controller") comprises: an internet connection input (see ref. 45 and col. 6, lines 8-16, where the DNT, i.e. Internet, link to the communications center is an Internet input, see also col. 9, lines 42-43); a switching element responsive to a public switched telephone network input (ref. 39: telephony switch and col. 9, lines 30-33, where the telephony switch is "adapted to receive COST calls from COST network 13 via a trunk connection 43"); an internet protocol interface responsive to an internet connection input (see ref. 45 and col. 6, lines 8-16, where it is implicit that the internet connection connect through an interface, see also col. 9, lines 42-43); a processor coupled to the internet protocol interface and the switching element (Fig. 1 and col. 9, lines 52-54, where the IDRP, ref. 37, is indirectly coupled to the switching element, ref. 39, and the IP interface, see ref. 45); a first set of agent output channels responsive to the switching element, the first set of agent output channels directed to communicate with circuit switched agent terminals (Fig. 1 and col. 9, lines 33-38, where COST telephones, ref. 81 and 83, are connected to switch 39, such that there is an agent output channel directed to communicate between the switching element and the COST terminals, i.e. circuit-switched agent terminals); a second set of agent output channels responsive to the internet protocol interface, the second set of agent output channels directed to communicate with

internet enabled agent terminals (Fig. 1 and col. 9, lines 39-46, where PC/VDUs, ref. 77 and 79, are connected to switch 41, and therefore indirectly responsive to the IP interface, such that there is an agent output channel directed to communicate between the IP interface and the PC/VDUs, i.e. internet enabled agent terminals); and a domain conversion module coupled to the switching element and the internet protocol interface to convert internet protocol traffic and circuit switched voice traffic on an inter-domain basis (Fig. 1; col. 10, lines 40-55 and col. 11, lines 3-18, where the gateway, ref. 57, converts between the DNT and the COST traffic and where the gateway is indirectly coupled with the switching element, ref. 39, and the IP interface).

Neyman does not expressly disclose coupling the processor to a data bus, where the data bus is coupled to the IP interface and the switching element. However, Neyman does disclose coupling the data processor to the IP interface and the switching element (Fig. 1 and col. 9, lines 52-54, where the IDRP, ref. 37, is indirectly coupled to the switching element, ref. 39, and the IP interface, see ref. 45). Examiner takes official notice that busses are a connection that is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to couple the processor to a data bus, where the data bus is coupled to the IP interface and the switching element, since busses are a well-known type of connection.

Neyman does not expressly disclose having a domain conversion module that performs domain conversion between the first set of agent output channels and the second set of agent output channels. Gisby teaches, in a system for routing calls to a call center, routing a call to a particular agent (col. 13, lines 42-46, where routing is done on the agent level) based on agent skill (col. 10, lines 29-41, where a skill profile indicates routing based on skill), degradation of system performance (col. 11, lines 9-14), or agent availability (col. 11, lines 32-50). Gisby does

this in order to permit a call center to operate "at best efficiency even as circumstances alter rapidly" (col. 11, lines 39-50). Neyman discloses using domain conversion to convert between circuit-switched and IP traffic based on enterprise rules (col. 10, lines 40-55 and col. 11, lines 3-18, where the gateway, ref. 57, converts between the DNT and the COST traffic). Examiner notes that the routing of Gisby is performed by an SCP or by the "call center" (col. 7, lines 39-44), where Neyman contemplates having the IDRP perform such routing, with the IDRP being within the call center (Fig. 1 and col. 8, lines 45-51). Thus, Neyman and Gisby disclose performing routing to particular call agents within the call center. As such, it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the routing of Gisby, which is based on agent skill, system performance, or agent availability, within the call center of Neyman, by having a domain conversion module that performs domain conversion between the first set of agent output channels and the second set of agent output channels. One of ordinary skill in the art at the time of the invention would have been motivated to do this in order to enable the call center controller to route calls between IP phones and COST phones depending on agent skill, network problems, and agent availability, such that the call center operates at best efficiency even as circumstances alter rapidly. In addition, providing the domain conversion module within the call center obviates the need for the call center controller to route a call that is to be converted into the other domain back into the network to an external gateway in order to perform the conversion, thus reducing call delay and traffic on the networks.

14. Regarding claim 50, Neyman in view of Gisby discloses a data resource module coupled to the internet protocol interface to provide selected data resources (Neyman: Fig. 1 and col. 9,

lines 4-20, where the IVR, ref. 47, provides selected data resources and where the IVR is indirectly coupled to the IP interface).

15. Regarding claim 51, Neyman in view of Gisby discloses that the selected data resources include at least one of: a web page support function, a caller interface generation function, and an email services function (Neyman: Fig. 1 and col. 9, lines 4-20, where the IVR provides a web page support function since users interact with the IVR through a Web page).

16. Regarding claim 52, Neyman in view of Gisby discloses a telephony resource module coupled to the switching module to provide selected telephony resources (Neyman: Fig. 1 and col. 9, lines 4-20, where the IVR, ref. 47, provides selected data resources and where the IVR is indirectly coupled to the switching module).

17. Regarding claim 53, Neyman in view of Gisby discloses that the selected telephony resources include at least one of: a music-on-hold resource, a voice mail resource, an interactive voice response function, and a speech recognition function (Neyman: Fig. 1 and col. 9, lines 4-20, where the selected telephony resource is an IVR).

18. Regarding claim 54, Neyman discloses a network spanning heterogeneous call center (Fig. 1 and col. 6, lines 16-19, where the "communications center" is controlled by various components, which, in combination, comprise a "call center controller") comprises: processing circuitry (Fig. 1 and col. 9, lines 52-54, where the IDRP, ref. 37, is "processing circuitry"); an internet protocol (IP) interface operably coupled to the processing circuitry that supports data transmission with an IP network for receiving data traffic (see ref. 45 and col. 6, lines 8-16, where the DNT, i.e. Internet, link to the communications center implicitly includes an interface, see also col. 9, lines 42-43, and where the IDRP is indirectly connected to the IP interface); a

switching element operably coupled to the processing circuitry that supports data transmission with a public switched telephone network (PSTN) network for receiving voice traffic (ref. 39: telephony switch and col. 9, lines 30-33, where the telephony switch is "adapted to receive COST calls from COST network 13 via a trunk connection 43" and where the switch is indirectly coupled to the IDRP); a domain conversion module operably coupled to the IP interface and the switching element that supports conversion of voice traffic between a PSTN network domain and an IP network domain (Fig. 1; col. 10, lines 40-55 and col. 11, lines 3-18, where the gateway, ref. 57, converts between the DNT and the COST traffic and where the gateway is indirectly coupled with the switching element, ref. 39, and the IP interface); and memory operably coupled to the processing circuitry, wherein the memory stores operational instructions (col. 8, lines 45-50, where the IDRP stores routing rules, among other things, where routing rules are "operational instructions" since they dictate how an IDRP should operate on a particular call).

Neyman does not expressly disclose that the operational instructions cause the processing circuitry to: when an IP-enabled agent of a plurality of IP-enabled agents is unavailable, present the data traffic to the domain conversion module to route the data traffic through the switching element to a first set of agent output channels responsive to the switching element; and when an agent telephone unit of a plurality of agent telephone units is unavailable, present the voice traffic to the domain conversion module to route the voice traffic through the IP interface to a second set of agent output channels responsive to the internet protocol interface. Gisby teaches, in a system for routing calls to a call center, routing a call to a particular agent (col. 13, lines 42-46, where routing is done on the agent level) based on agent skill (col. 10, lines 29-41, where a skill profile indicates routing based on skill), degradation of system performance (col. 11, lines

9-14), or agent availability (col. 11, lines 32-50). Gisby does this in order to permit a call center to operate "at best efficiency even as circumstances alter rapidly" (col. 11, lines 39-50). Neyman discloses using domain conversion to convert between circuit-switched and IP traffic based on enterprise rules (col. 10, lines 40-55 and col. 11, lines 3-18, where the gateway, ref. 57, converts between the DNT and the COST traffic). Examiner notes that the routing of Gisby is performed by an SCP or by the "call center" (col. 7, lines 39-44), where Neyman contemplates having the IDRP perform such routing, with the IDRP being within the call center (Fig. 1 and col. 8, lines 45-51). As such, it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the routing of Gisby, which is based on agent skill, system performance, or agent availability, within the call center of Neyman, by having the operational instructions cause the processing circuitry to: when an IP-enabled agent of a plurality of IP-enabled agents is unavailable, present the data traffic to the domain conversion module to route the data traffic through the switching element to a first set of agent output channels responsive to the switching element; and when an agent telephone unit of a plurality of agent telephone units is unavailable, present the voice traffic to the domain conversion module to route the voice traffic through the IP interface to a second set of agent output channels responsive to the internet protocol interface. One of ordinary skill in the art at the time of the invention would have been motivated to do this in order to enable the call center controller to route calls between IP phones and COST phones depending on agent availability. In addition, providing the domain conversion module within the call center obviates the need for the call center controller to route a call that is to be converted into the other domain back into the network to an external gateway in order to perform the conversion, thus reducing call delay and traffic on the networks.

19. Regarding claim 55, Neyman in view of Gisby discloses a data resource module to provide selected data resources via the internet protocol interface (Neyman: Fig. 1 and col. 9, lines 4-20, where the IVR, ref. 47, provides data resources via the IP interface by, for example, providing access to call center resources faster for priority calls).

20. Regarding claim 56, Neyman in view of Gisby discloses that the selected data resources include at least one of: a web page support function, a caller interface generation function, and an email services function (Neyman: Fig. 1 and col. 9, lines 4-20, where the IVR provides a web page support function since users interact with the IVR through a Web page).

21. Regarding claim 57, Neyman in view of Gisby discloses a telephone data resource module to provide selected telephony resources via the switching module (Neyman: Fig. 1 and col. 9, lines 4-20, where the IVR, ref. 47, provides selected data resources via the switching module, by, for example, providing access to call center resources faster for priority calls).

22. Regarding claim 58, Neyman in view of Gisby discloses that the selected telephony resources include at least one of: a music-on-hold resource, a voice mail resource, an interactive voice response function, and a speech recognition function (Neyman: Fig. 1 and col. 9, lines 4-20, where the selected telephony resource is an IVR).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Daniel J Ryman
Examiner
Art Unit 2616

Daniel Ryman